

South Dakota AFNR

Academic Integration Activities: Example #2

→ *Floriculture students develop floristry prices by using linear equations.*

1. Ag Standard

Floriculture—FL 1.3

Develop marketing and pricing strategies for retail floristry.

- > Create an invoice for sale using industry standard formulas.

2. Academic Standard

9-12.A.3.1

Students are able to create linear models to represent problem situations.

3. Background Information

Example: A telephone bill is \$10 per month plus \$0.30 per minute for long distance calls. Write an equation in slope-intercept form that expresses the total amount of the phone bill.

slope-intercept form: $y = mx + b$

m = slope of the line

x = variable

b = y-intercept

slope = rise/run

4. Example in Context

The flower shop charges \$25 for a bouquet of six lily flowers. Each additional lily costs \$2.75. Write an equation in slope-intercept form that expresses the total amount of the flower bouquet bill.

Remember, the slope-intercept form is $y = mx + b$

b = set cost (\$25)

m = cost that changes according to the x variable

Answer: $y = 2.75x + 25$

5. Guided Practice Exercises

Assume the gift shop sells rose boutonnieres for a beginning price of \$9. Each additional small rose adds an extra \$2.50 to the price. Write an equation in slope-intercept form that expresses the total amount of a boutonniere.

m = slope of the line = \$2.50

b = y-intercept, set number = \$9

Answer: $y = 2.5x + 9$

6. Independent Practice Exercises

Assume the gift shop sells candy bouquets. The starting price is \$16 for five candy bars and another \$1.99 for each additional candy bar. Write an equation in slope-intercept form that expresses the total amount of the candy bouquet bill.

Answer: $y = 1.99x + 16$

Assume the flower shop sells Mother's Day pink chrysanthemums in wicker baskets. The wicker basket costs \$11, and each flower is \$3. Write an equation in slope-intercept form that expresses the total amount a Mother's Day gift would cost.

Answer: $y = 3x + 11$

7. Notes

[None]